CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

Fresno Office
1685 "E" Street
Fresno, CA 93706-2007

Sacramento Office (Main)
11020 Sun Center Drive #200
Rancho Cordova, CA 95670-6114

Redding Office
364 Knollcrest Drive #205
Redding, CA 96002

Regional Board Website (https://www.waterboards.ca.gov/centralvalley)

WASTE DISCHARGE REQUIREMENTS ORDER R5-2025-0020

ORDER INFORMATION

Order Type(s):	Waste Discharge Requirements (WDRs)
Status:	Adopted
Program:	Non-15 Discharge to Land
Region 5 Office:	Fresno
Discharger(s):	Dry Ranch, LLC; G&G Andrew Farms Tenants in Common; Creekside Farms, LP Tenants in Common; Alkali Hollow Farms, Inc.; and ATB Ranch, LP
Facility:	Dry Ranch Pistachio Processing Facility
Address:	13559 Firebaugh Blvd
County:	Madera County
Parcel Nos.:	Facility: 041-172-004 (See Table 1 for full list of APNs)
CIWQS Place ID:	874742
Prior Order(s):	None

CERTIFICATION

I, PATRICK PULUPA, Executive Officer, hereby certify that the following is a full, true, and correct copy of the order adopted by the California Regional Water Quality Control Board, Central Valley Region, on 25 April 2025.

Date: 2025.05.20 14:55:52 -07'00'

PATRICK PULUPA, Executive Officer

TABLE OF CONTENTS

TABLE INDEX

GLOSSARY

APN	Assessor's parcel number
bgs	Below ground surface
BOD_5	[5-day] Biochemical oxygen demand at 20 degrees Celsius
BPTC	Best practical treatment or control
CEQA	California Environmental Quality Act, Public Resources Code section 21000 et seq
CV-SALTS	Central Valley Salinity Alternatives for Long-Term Sustainability
DO	Dissolved oxygen
DWR	Department of Water Resources
EC	Electrical conductivity
FDS	Fixed dissolved solids
FEMA	Federal Emergency Management Agency
gal	Gallons
gpd	Gallons per day
lb	Pounds
lb/ac/day	Pounds per acre per day
LAAs	Land application areas
MCL	Maximum contaminant level
MG[D]	Million gallons [per day]
MGY	Million gallons per year
mg/L	Milligrams per liter
MRP	Monitoring and Reporting Program
MUN	Municipal
N	Nitrogen
NA	Not applicable or not available
ND	Not detected or non-detect
NPDES	National Pollutant Discharge Elimination System
OAL	Office of Administrative Law
P&O Study	Prioritization and Optimization Study of the Salt Control Program
RL	Reporting limit

GLOSSARY

RWD	Report of Waste Discharge
SERC	State of Emergency Response Commission
sMCL	Secondary maximum contaminant level
SPRRs	Standard Provisions and Reporting Requirements
TDS	Total dissolved solids
Title 22	California Code of Regulations, Title 22
Title 27	California Code of Regulations, Title 27
TKN	Total Kjeldahl nitrogen
USEPA	United States Environmental Protection Agency
WDRs	Waste Discharge Requirements
WQOs	Water Quality Objectives
µg/L	Micrograms per liter
µmhos/cm	Micromhos per centimeter

FINDINGS

The Central Valley Regional Water Quality Control Board (Central Valley Water Board) finds as follows:

Introduction

1. The Dry Ranch Pistachio Processing Facility (Facility) is located at 13559 Firebaugh Boulevard in Madera, Madera County, near the intersection of Firebaugh Boulevard and the Chowchilla Bypass (also known as the Eastside Bypass), as shown in Attachment A. The Facility processes pistachios from August to October each year and discharges process wastewater via flood irrigation to 1,569 acres of land application areas (LAAs) (i.e., croplands). The Facility is owned and operated by Dry Ranch, LLC, but the Facility property and the land application area properties are owned by several other entities, as listed in Table 1. Dry Ranch, LLC and those entities listed in Table 1 are collectively referred to as **Discharger**.

2. The Facility is not currently regulated by waste discharge requirements (WDRs). WDRs are needed for this Facility to ensure the discharge will comply with water quality plans and policies. On 28 May 2021, Central Valley Water Board staff received a Report of Waste Discharge (RWD) submitted by Trinity Consultants, on behalf of the Discharger, for the discharge of process wastewater at the Facility. The RWD included a Form 200 and a technical report prepared and signed by Dolores Gough (RCE 62599), a California registered civil engineer. Phased construction of the Facility and operations began in 2021. Additional supporting information and a Notice of Intent for the Nitrate Control Program was received on 22 July 2021.

3. In a 6 August 2021 letter, Central Valley Water Board staff confirmed that the RWD was complete and issued Monitoring and Reporting Program Order (MRP) R5-2021-0811 requiring the Discharger to monitor the proposed discharge and report data needed for the development of WDRs. The MRP required monitoring of and reporting on Facility effluent (including flow and water quality), source water, irrigation water, LAAs, and process solids.

4. A summary of location and ownership information for the Facility and LAAs is presented in Table 1, below, and shown in Attachment A. Acreages presented in Table 1 are approximate. Attachment B is a site plan map which shows the Facility source water wells and parcel numbers.

Table 1 - Land Ownership and Use

APN	Acres	Owner(s)	Land Use
041-120-005	92	G & G Andrew Farms and Creekside Farms as Tenants in Common	Pistachio
041-120-006	140		Pistachio
041-171-008	283		Open (see 1 below)
041-172-007	159		Pistachio
041-180-004	161		Pistachio
041-180-005	160		Pistachio
041-231-008	84		Pistachio
041-172-004	46		Facility/Open (see 1 below)
041-180-006	160	Alkali Hollow Farms, Inc.	Pistachio
041-250-001	284	ATB Ranch, LP	Pistachio
	Total =1,568		

1. According to the RWD, APNs 041-171-008 and 041-172-004 will be planted in sorghum, grass, grain, or any crop suitable for the area.

5. G & G Andrew Farms Tenants in Common is composed of several trusts and one incorporation, as listed below along with their approximate associated proportions of ownership. The Discharger explained in a 9 October 2024 email that the trustees of the trusts are those persons named in title (i.e. Janice Lowder, Diane Kirk, and Karen Andrew).

   a. Janice Lowder 2011 Irrevocable Trust (23 percent)

   b. Janice Lowder Non-exempt Trust (10 percent)

   c. Diane Kirk 2011 Irrevocable Trust (23 percent)

   d. Diane Kirk Non-exempt Trust (10 percent)

   e. Karen Andrew 2011 Irrevocable Trust (23 percent)

   f. Karen Andrew Non-exempt Trust (10 percent)

   g. G & G Andrew Farms, Inc. (1 percent)

6. Creekside Farms Tenants in Common is composed of several trusts, as listed below along with their associated approximate proportions of ownership. The trustees of the trusts are those persons named in title.

a. Karen M. Andrew Living Trust (33 percent)

b. Diane L. Kirk Living Trust (33 percent)

c. Larry and Janice Lowder Living Trust (33 percent)

7. ATB Ranch, LP is a limited partnership, for which G&G Andrew Farms, Inc. is the sole general partner.

8. As the Facility's owners and operator, the Discharger is responsible for compliance with the WDRs prescribed in this Order.

9. The following materials are attached and incorporated as part of this Order:

a. Attachment A – Site Location Map

b. Attachment B – Site Plan Map

c. Attachment C – Facility Map

d. Attachment D – Process Flow Diagram

e. Information Sheet

f. Standard Provisions & Reporting Requirements dated 1 March 1991 (1 March 1991 SPRRs) [https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/std_provisions/wdr-mar1991.pdf]

10. Also attached is **MRP R5-2025-0020**, which requires monitoring and reporting for discharges regulated under these WDRs. MRP R5-2025-0020 supersedes MRP R5-2021-0811, which is terminated upon adoption of this Order. The Discharger shall comply with MRP R5-2025-0020, and any subsequent revisions thereto, as ordered by the Executive Officer or adopted by the Central Valley Water Board.

Facility and Discharges

11. Operations at the Facility include hulling (removing the fleshy outer portion of the fruit and leaving the central nut/pit), drying, processing, finishing, packaging, and storage of pistachios. Construction of the Facility began in 2021 and occurred in the following phases:

Phase 1 - Construction of hulling operation components, including receiving pits, hullers, dryers, silos, sorting, and bulk packaging lines.

Phase 2 - Construction of a 72,000 sq-ft ready-to-eat (RTE) building that will house finishing operations, such as roasting and pasteurization, and a 7,500 sq-ft sheller building that will house cracking and separation equipment.

12. According to the 2021 RWD, the Facility will process approximately 15 million pounds of pistachios each year and will generate up to 45 million gallons of wastewater per year, a seasonal average flow of approximately 1.5 million gallons per day (MGD) at full build out, and a peak daily flow of 2.5 MGD. Process wastewater is then used for irrigating crops on 1,568 acres of LAAs. The majority of the LAAs consist of pistachio orchards, while a smaller proportion (about 300 acres) are planted in sorghum/sudan grass.

13. Pistachio harvest occurs from late August through October. Process wastewater is primarily generated by hulling operations, which occur within hours of harvest, and includes hulling water, equipment washdown, and boiler blowdown.

14. After the hulling process, the pistachios go through drying, roasting, and pasteurization processes in the Facility's RTE building. The Discharger estimates that approximately 500 gallons per year of wastewater is produced by the shelling operation/RTE building. Wastewater from the RTE building is collected in storage tanks and disposed of via a licensed disposal company (e.g. Safety Kleen).

15. Data reflecting wastewater flow to the LAAs from 2021 to 2023 are summarized in Table 2, below. Note that wastewater flows increased from 2021 to 2023 as the Facility was built out. At the time of this Order, the facility is at 78 percent of the maximum allowed annual flow and the RTE building is not yet online, but is expected to come online by March 2025.

Table 2 - Effluent Wastewater Flow

Year	**Land Application Dates**	**Total Season Flow** (Million Gallons)	**Average Daily Flow** (MGD)	**Maximum Daily Flow** (MGD)
2021	1 Sep to 9 Oct	10.7	0.295	0.916
2022	23 Aug to 3 Oct	12.5	0.328	0.554
2023	1 Sep to 14 Oct	35.0	0.795	1.127

16. Hulling wastewater, along with hulls and minor amounts of shells removed by the hullers, is discharged into one of two approximately 23,000-gallon concrete pits, which are operated in parallel. From these pits, the hulling water is pumped to a bank of parabolic screens to separate the solids, then into an approximately 48,000-gallon concrete pit where it is mixed with fresh irrigation water and then pumped into the metered farming irrigation system for flood irrigation of the LAAs. Solids generated from the screens are placed directly into trucks and hauled offsite for beneficial use, such as animal feed or composting. A process flow diagram of the wastewater collection and treatment process is shown in **Attachment D**.

17. Wastewater effluent quality from samples collected from 2021 through 2023 is summarized in Table 3 below. Samples were collected prior to blending the effluent with irrigation water. Average values were calculated by computing the average value of each year and then averaging the annual average values. The range of individual measured values is also shown along with the total number of samples for the three years for each parameter. Overall, average FDS is less than one-fifth of overall average TDS, indicating most of the dissolved solids are organic dissolved solids.

Table 3 - Wastewater Quality 2021-2023

Constituents/Parameters	Units	Average	Minimum Value	Maximum Value	Total No. of Readings
Biochemical Oxygen Demand (5-day)	mg/L	1,760	120	3,800	9
Fixed Dissolved Solids	mg/L	712	270	1,300	10
Total Kjeldahl Nitrogen	mg/L	91	16	180	9
Total Nitrogen	mg/L	91	16	180	9
Nitrate as N	mg/L	0.4	0.05	1	8
Total Dissolved Solids	mg/L	3,733	3,000	4,200	3
Dissolved Calcium	mg/L	49	36	56	3
Dissolved Magnesium	mg/L	17	13	21	3
Dissolved Sodium	mg/L	45	36	60	2
Dissolved Potassium	mg/L	485	48	650	7
Bicarbonate Alkalinity as $CaCO_3$	mg/L	377	350	410	3
Carbonate Alkalinity as $CaCO_3$	mg/L	3.2	1.5	4.1	3
Hydroxide Alkalinity as $CaCO_3$	mg/L	1.5	1.5	1.5	1
Alkalinity as $CaCO_3$	mg/L	377	350	410	3
Chloride	mg/L	50	29	79	3
Sulfate	mg/L	81	44	140	3
Dissolved Boron	mg/L	0.4	0.1	0.81	3
Dissolved Iron	mg/L	2.3	0.025	5.6	3
Dissolved Manganese	mg/L	0.084	0.039	0.13	3
Ortho Phosphate	mg/L	26	15	38	3

18. The Discharger identified that the following chemicals are used for various activities at the Facility:

Table 4 - Chemical Usage Summary

Chemical	Use
Sodium hypochlorite	Disinfection of the supply water
Scale inhibitors and possibly water softening chemicals	Used for the boiler
Food and Drug Administration (FDA) approved sanitizers and degreasers	Pistachio processing operation
Food grade lubricating, gear, and hydraulic oils	Used for processing equipment
Diesel fuel	Used for yard mules and tractors
Fumigants (hydrogen phosphide and sulfuryl fluoride)	Not used in the hulling operation

19. The RWD included a water balance that considers flood irrigation demand for available pistachio and sorghum acreage, average and 100-year return precipitation data, and average observed evapotranspiration rates. Average precipitation and evapotranspiration data used in the water balance was collected from the California Irrigation Management Information System, Firebaugh station from 2016 to 2020. The 100-year return precipitation is based on data available for the Firebaugh area from the National Oceanic and Atmospheric Association, Atlas 14. The water balance is summarized in Table 5 and demonstrates that the proposed annual flow limit of 45 million gallons per year is less than the total annual crop demand for water at the LAAs and that supplemental irrigation water is needed. Even during the peak month of September, the water balance indicates that the process wastewater generated is only about 13 percent of total irrigation demand for the month.

Table 5 - Irrigation Demand and Wastewater Availability

	Irrigation Demand for Crops (MG)	Water Available From Wastewater (MG)
Annual	1,795	45
Peak Month (September)	238	30

20. Wastewater application to the LAAs occurs daily during the harvest season when wastewater is produced. Prior to application, the wastewater is mixed with fresh irrigation water in the second stage blending concrete pit. The Discharger proposes using a rotation of defined blocks in the LAA so that

nutrient, organic (BOD), and hydraulic loading rates can be effectively tracked, recorded, and managed.

21. Observed nitrogen application rates for specific crops within California are available from the California Department of Food and Agriculture's Fertilizer Research and Education Program (FREP). According to FREP crop guidelines, the approximate nitrogen application rate for a pistachio orchard that yields 1,000 lbs/acre/year under flood irrigation is 56 lbs/acre/year. Similarly, according to the *Western Fertilizer Handbook, Eighth Edition*, the annual nitrogen uptake rate for grain sorghum is approximately 250 lbs/acre (assuming a 4 ton/acre/yr yield).

22. Anticipated nitrogen loading rates, based on average observed nitrogen concentrations (process wastewater and fresh irrigation water) and assuming the Discharger is applying the water evenly to 1,500 acres of the LAAs, are shown below, in Table 6. The nitrogen loading from wastewater and irrigation water is anticipated to be approximately 36 lbs/acre/year, less than the nitrogen demand of the crops.

Table 6 - Nitrogen Loading

Type of Water	**Total N Concentration** mg/L	**Amount of Water Applied Per Year to 1,500 acres** MG/year (MGY)	**Pounds of Nitrogen Applied to 1,500 acres** lbs/acre/year
Process Wastewater	91	45	23
Fresh Irrigation Water	1.3	1,750	13
Total	Not applicable	1,795	36

23. Estimated salt loading rates, based on observed average concentrations of TDS and FDS in the process wastewater and maximum observed concentrations of TDS and FDS from the irrigation wells used to blend with wastewater, are shown in Table 7. The combined discharge of process wastewater and irrigation water will add approximately 1,960 pounds of salt (calculated using FDS) per acre annually; however, the salt load from the process wastewater only will add around 180 lbs/acre/year.

Table 7 - Salinity Loading Rates

Type of Water	Total Annual Flow	Ave. Conc. TDS	Ave. Conc. FDS	Annual TDS Loading Rate	Annual FDS Loading Rate
	MGY	mg/L	mg/L	lbs/acre/ year	lbs/acre/ year
Process Wastewater	**45**	**3,733**	**712**	**934**	**178**
Fresh Irrigation Water	1,750	250	183	2,433	1,781
Total	1,795	Not applicable	Not applicable	3,367	1,959

24. Sample cycle average BOD_5 loading calculations were provided by the Discharger that considered applying the maximum anticipated annual flow (45 MG) over a 45-day processing season to 20 discrete LAA blocks ranging in size from about 20 to 90 acres (about 1,100 acres total). The calculations anticipate higher BOD_5 concentrations at beginning of the processing season, up to 3,500 mg/L. Based on this scenario, the discharger estimates BOD_5 loading to generally range from less than 10 lbs/acre/day to about 70 lbs/acre/day. The sample scenario calculations indicate that even at the max BOD_5 concentration, the peak daily flow of 2.5 million gallons may be applied to a 70-acre block and result in a loading rate of about 55 lbs/acre/day. Therefore, this Order establishes a BOD_5 limit of 100 lbs/acre/day.

25. A dedicated unlined stormwater pond collects onsite stormwater. The pond is designed to hold stormwater from 100-year storm events (1.74 MG) and has a capacity of 1.77 MG. Stormwater is managed separate from the process wastewater system.

26. There are three separate septic systems that serve the domestic wastewater needs associated with the Facility. These domestic systems are permitted by the Madera County Environmental Health Department.

Site-Specific Conditions

Topography, Climate, and Land Use

27. Local land use in the Facility vicinity is agriculture, and the site is surrounded by farmland (according to the California Department of Water Resources (DWR) Land Use Viewer (https://gis.water.ca.gov/app/CADWRLandUseViewer/?page=home) and the Eastside/Chowchilla Bypass. The bypass borders the western boundary of the LAA and provides a path to divert water

from the San Joaquin River around Firebaugh to prevent flooding in Firebaugh.

28. The land surface in the general vicinity of the Facility slopes gently to the west approximately 4.3 feet per mile, and elevation ranges from approximately 159 to 169 feet above mean sea level (msl). Surface water eventually drains toward the Eastside/Chowchilla Bypass Canal bordering the west side of the site. The bypass levees and berms at the LAAs prevent potential Facility runoff from entering the bypass.

29. The Facility is in the Central Valley, which is an arid climate characterized by dry summers and mild winters. Based on information using the California Irrigation Management Information System Firebaugh/Telles - Station 7, the annual reference evapotranspiration near Facility is 57.9 inches. According to National Oceanic and Atmospheric Association records, the average annual rainfall in the Madera area is 9.24 inches, and the year with the greatest precipitation since 1900 (1983) experienced 22.1 inches of rainfall.

30. According to the Natural Resources Conservation Service website (https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx), the dominant soil types present at the Facility and LAAs (approximately 90 percent) are Fresno and El Peco fine sandy loams with varying salinity. These soils are moderately well drained with slopes of 0 to 1 percent.

31. Approximately 220 acres of LAAs, on the west side of the site bordering the Eastside/Chowchilla Bypass, are located within Zone A, Special Flood Hazard, High Risk area, as currently defined by the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map, which indicates there is one percent annual risk of a major flood. The rest of the LAAs and the Facility are not in the 100-year flood zone with the exception of the stormwater pond. The RWD/Discharger noted that the following flood mitigation measures are employed at the Facility:

    a. Land application of wastewater occurs in the summer and early fall, which statistically is a dry time of the year.
    b. Madera County requires an elevation certificate for all future buildings.
    c. The Discharger's operations will comply with Madera County Floodplain requirements and regulations.
    d. The Discharger will participate in Madera County Flood Control and Water Conservation Agency programs for farmland maintenance, preparation for homes and farms in emergency flood conditions, and stormwater management to control flood risks and manage stormwater at the site.

e. There is a stormwater pond on the site that is sized to handle the 100-year storm.

f. The use of berms to control potential flood waters from migrating offsite.

Groundwater and Subsurface Conditions

32. According to Spring 2020 through Fall 2023 groundwater elevation contour maps available from the DWR Sustainable Groundwater Management Act (SGMA) Data Viewer (https://sgma.water.ca.gov/webgis/?appid=SGMADataViewer#gwlevels), groundwater elevations underlying the Facility are variable, in most cases within 60 feet below msl. Depth to groundwater underlying the Facility occurs from 100 to 210 feet below ground surface (bgs), and regional groundwater flow occurs in multiple directions in the site vicinity, most often to the north or north-northeast.

33. The well log for one of the Facilities irrigation wells (Ag Well 48) was included in the RWD. The 1973 well log indicates the total depth of the well is 210 feet and identifies a shallow, three-foot thick hardpan from three to six feet bgs, then alternating sand and clay layers to 200 feet. During construction of the well, groundwater was encountered at 79 feet, and the casing was installed to a depth of 188 feet and left open below.

34. The well log for Agricultural Well 49 was also included in the RWD. The 1966 well log indicates the total depth of the well is 328 feet and identifies alternating layers of sand and clay to the 328-foot depth. During construction of the well, groundwater was encountered at 22 feet bgs, but the casing was installed with perforations from 160 to 315 feet bgs.

35. The RWD presents March 2021 source water quality data for the domestic well that serves the Facility, which is summarized in Table 8 below. The domestic well is only used for domestic purposes inside the processing facility and the wastewater goes to a septic system and is not used for pistachio processing. Based on the data presented in the RWD, the domestic well water quality is good with the exception of one observed iron concentration (0.53 mg/L) that exceeded the 0.3 mg/L secondary MCL.

36. Irrigation water for blending with wastewater is supplied by two existing on-site agricultural wells (Ag Well Nos. 48 and 49). A third agricultural well (Ag Well No. 50) is used to provide source water for the pistachio processing operations at the Facility. Table 8 reflects data from these wells as presented in the 2021 RWD and reports submitted by the Discharger between 2021 to 2023 pursuant to MRP R5-2021-0811. Applicable water quality objectives (WQOs) are also presented in Table 8 for comparison. If more than one test result was available for a particular parameter, the presented value

represents an average result and is accompanied by the number of samples used to calculate the average in parentheses, and the range of results are bracketed. Water quality of the Ag Wells is similar to that of the domestic well and is of good quality for all constituents analyzed.

Table 8 - Groundwater Quality 2021-2023

Constituent	Units	Domestic Well	Supplemental Irrigation Water	Process Source Water	WQOs
EC	µmhos/cm	470	479 (4) [280-648]	384 (4) [280-555]	900*
Nitrate (as N)	mg/L	1.3	0.49 (4) [0.39-0.58]	0.45	10
TDS	mg/L	300	250	210	500*
FDS	mg/L	260	182.5 (4) [150-230]	205 (4) [180-250]	--
Chloride	mg/L	44	24	15	250*
Magnesium	mg/L	10	5.8	4.9	--
Potassium	mg/L	3.0	3.3	3.1	--
Hardness as $CaCO_3$	mg/L	150	90	71	--
Potassium	mg/L	3.0	3.3	3.1	--
Sodium	mg/L	--	39	33	--
Arsenic	µg/L	2.9	3.8	5	10
Boron	mg/L	--	<0.1	<0.1	--
Chromium	µg/L	3.2	<10	<10	50
Copper	µg/L	2.1	--	--	1,000
Hexavalent Chromium	mg/L	0.0029	--	--	0.010
Iron	mg/L	0.53	<0.03	<0.03	0.3
Manganese	mg/L	0.028	<0.01	<0.01	0.050
Lead	µg/L	1.4	--	--	15
Alkalinity as $CaCO_3$	mg/L	160	130	130	--
Bicarbonate as $CaCO_3$	mg/L	160	130	120	--
Carbonate as $CaCO_3$	mg/L	<3.0	<3.0	<3.0	--

*= recommended secondary standard

Legal Authorities

37. This Order is adopted pursuant to Water Code section 13263, subdivision (a), which provides in pertinent part as follows:

> *The regional board, after any necessary hearing, shall prescribe requirements as to the nature of any proposed discharge, existing discharge, or material change in an existing discharge…, with relation to the conditions existing in the disposal area … into which, the discharge is made or proposed. The requirements shall implement any relevant water quality control plans that have been adopted, and shall take into consideration the beneficial uses to be protected, the water quality objectives reasonably required for that purpose, other waste discharges, the need to prevent nuisance, and the provisions of [Water Code] Section 13241.*

Compliance with section 13263, subdivision (a), including implementation of applicable water quality control plans, is discussed in the findings below.

38. The ability to discharge waste is a privilege, not a right, and adoption of this Order shall not be construed as creating a vested right to continue discharging waste. (Water Code, § 13263, subd. (g).)

39. This Order and its associated MRP are also adopted pursuant to Water Code section 13267, subdivision (b)(1), which provides as follows:

> [*T]he regional board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste … shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports and shall identify the evidence that supports requiring that person to provide the reports.*

40. The reports required pursuant to this Order and the separately issued MRP are necessary to verify and ensure compliance with the WDRs. The burden associated with such reports is reasonable relative to the need for their submission.

Basin Plan Implementation

41. Pursuant to Water Code section 13263, subdivision (a), WDRs must "implement any relevant water quality control plans and shall take into consideration the beneficial uses to be protected, the water quality objectives reasonably required for that purpose, other waste discharges, the need to prevent nuisance, and the provisions of Section 13241."

Beneficial Uses of Water

42. This Order implements the Central Valley Water Board's *Water Quality Control Plan for the Sacramento River and San Joaquin River Basins* (Basin Plan), which designates beneficial uses for surface water and groundwater and establishes water quality objectives (WQOs) necessary to preserve such beneficial uses. (See Water Code, § 13241 et seq.)

43. The Facility is within the San Joaquin Valley Floor Hydrologic Unit, specifically the Gravelly Fork Hydrologic Area (No. 545.10), as depicted on interagency hydrologic maps prepared by the DWR in August 1986. The nearest surface water body to the Facility is the Eastside Bypass, which makes up the western border of the LAAs, and eventually empties into the San Joaquin River. This Order does not authorize any discharge of waste to any surface water or tributary thereof.

44. The Basin Plan designates the beneficial uses of underlying groundwater as municipal and domestic water supply (MUN), agricultural supply (AGR), industrial service supply (IND), and industrial process supply (PRO).

Water Quality Objectives

45. The Basin Plan establishes narrative WQOs for chemical constituents, taste and odors, and toxicity in groundwater. It also sets forth a numeric WQO for total coliform organisms.

46. The Basin Plan's numeric WQO for bacteria requires that the most probable number (MPN) of coliform organisms over any seven-day period shall be less than 2.2 per 100 mL in groundwater designated for MUN.

47. The Basin Plan's narrative WQO for chemical constituents in groundwater generally provides that groundwater shall not contain constituents in concentrations adversely affecting beneficial uses. The Basin Plan specifies that MUN-designated waters must, at a minimum, meet the secondary MCLs

specified in California Code of Regulations, title 22 (Title 22).[1] (See Title 22, sections 64431, 64444, and 64449.)

48. The narrative WQO for toxicity requires that groundwater be maintained free of toxic substances in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life associated with designated beneficial uses.

49. Quantifying a narrative WQO requires a site-specific evaluation of those constituents that have the potential to impact water quality and beneficial uses. The Basin Plan states that when compliance with a narrative WQO is required to protect specific beneficial uses, the Central Valley Water Board will, on a case-by-case basis, adopt numerical limitations to implement the narrative WQO. In establishing a specific numeric interpretation of a narrative WQO, the Basin Plan methodology is to consider any relevant published criteria. General salt tolerance guidelines, such as *Water Quality of Agriculture* by Ayers and Westcot and similar references, indicate that yield reductions in nearly all crops are not evident when irrigation water has an EC of less than 700 µmhos/cm. There is, however, an eight-to ten-fold range in salt tolerance for agricultural crops and the appropriate salinity values to protect agriculture in the Central Valley are considered on a case-by-case basis. It is possible to achieve full yield potential with groundwater EC up to 3,000 µmhos/cm, if the proper leaching fraction is provided to maintain soil salinity within the tolerance of the crop. The list of crops in Finding 4 is not intended as a definitive inventory of crops that are or could be grown in the area affected by the discharge.

Salt Control Program

50. At its 31 May 2018 Board Meeting, the Central Valley Water Board adopted Basin Plan amendments incorporating new programs for addressing ongoing salt and nitrate accumulation in the Central Valley (Resolution R5-2018-0034). The Basin Plan amendments became effective on 17 January 2020 and were revised by the Central Valley Water Board in 2020 with Resolution R5-2020-0057 (https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/resolutions/r5-2020-0057_res.pdf). The revisions to the Basin Plan amendments became effective on 10 November 2021.

[1]The Basin Plan recognizes that the Central Valley Water Board may apply limits more stringent than MCLs to ensure that waters do not contain chemical constituents in concentrations that adversely affect beneficial uses

51. Under the Salt Control Program, dischargers that are unable to comply with stringent salinity requirements may instead maintain compliance by meeting performance-based requirements, as determined appropriate by the Central Valley Water Board, and participating in the basin-wide effort known as the Prioritization and Optimization Study (P&O Study) to develop a long-term salinity strategy for the Central Valley. On 16 October 2024, the Discharger submitted a Notice of Intent to participate in the P&O Study and was issued **CV-SALTS ID: 3591**. To maintain existing salt discharges and minimize salinity impacts, this Order does the following:

    a. Requires the Discharger to continue efforts to control salinity in its discharge; and

    b. Sets a Performance-Based Salinity Limit of **900 mg/L for FDS,** as an annual average, on the discharge of wastewater sent to the LAAs (process wastewater concentration at the concrete pit before blending). The Performance-Based Salinity Limit is based on a 25 percent increase to the annual average wastewater effluent FDS concentration for the first three years of operation. Available effluent data from the Facility, the depth to first-encountered groundwater, and current groundwater quality data were considered in developing the limit. This limit is intended to ensure that the Facility's discharge of salinity does not increase over time.

Nitrate Control Program

52. The Nitrate Control Program is a prioritized program. The Facility is within Groundwater Basin 5-022.06 (San Joaquin Valley – Madera), which is a Priority 2 Basin. Notices to Comply were issued to dischargers in Priority 2 Basins in December 2023 and dischargers had until February 2025 to respond to the notice. These notices provided dischargers with a choice to participate in an individual permitting approach (Pathway A) or in a collective permitting approach (Pathway B). The RWD included a Notice of Intent, dated 14 July 2021, indicating its intent to participate in the Pathway B Management Zone Permitting Approach for Groundwater Basin 5-022.06. Under this approach, dischargers jointly form "Management Zones" that fulfill the requirements of the Nitrate Control Program.

53. As these strategies are implemented, the Central Valley Water Board may find it necessary to modify the requirements of these WDRs to ensure the goals of the Salt and Nitrate Control Programs are met. As such, this Order may be amended or modified to incorporate any newly applicable requirements. More information regarding this regulatory planning process can be found on the Central Valley Water Board's CV-SALTS website at: https://www.waterboards.ca.gov/centralvalley/water_issues/salinity.

Special Considerations for High Strength Wastewater

54. For the purpose of this Order, “high strength wastewater” is defined as wastewater that contains concentrations of readily degradable organic matter that exceed typical concentrations for domestic sewage. Such wastes contain greater than 500 mg/L BOD_5. Typical high strength wastewaters include septage, some food processing wastes (e.g., slaughterhouse wastes), winery wastes, and rendering plant wastes.

55. Excessive application of high strength wastewater to land can create objectionable odors, soil conditions that are harmful to crops, and degradation of underlying groundwater with nitrogen species and metals, as discussed below. Such groundwater degradation can be prevented or minimized through implementation of best management practices such as planting crops to take up nutrients or maximizing oxidation of BOD to prevent nuisance conditions.

56. Regarding BOD, excessive application can deplete oxygen in the vadose zone and lead to anoxic conditions. At the ground surface, this can result in nuisance odors and fly breeding. Below the ground surface, when insufficient oxygen is present, anaerobic decay of organic matter can create reducing conditions that convert metals that are naturally present in the soil as relatively insoluble (oxidized) forms into more soluble reduced forms. This condition can be exacerbated by acidic soil and/or wastewater. If the reducing conditions do not reverse as the percolate travels down through the vadose zone, these dissolved metals (primarily iron, manganese, and arsenic) can degrade shallow groundwater quality. Many aquifers contain enough dissolved oxygen to reverse the process, but excessive BOD loading over extended periods may cause degradation and beneficial use impacts associated with these metals.

57. Typically, irrigation with high strength wastewater results in high BOD loading on the day of application. It is reasonable to expect some oxidation of BOD at the ground surface, within the evapotranspiration zone, and below the root zone within the vadose (unsaturated) zone. The maximum BOD loading rate that can be applied to land without creating nuisance conditions or leaching of metals can vary significantly depending on soil conditions and operation of the land application system.

58. *Pollution Abatement in the Fruit and Vegetable Industry*, published by the United States Environmental Protection Agency (USEPA), recommends BOD_5 loading rates in the range of 36 to 600 lbs/acre/day to prevent nuisance, but indicates that higher loading rates may be appropriate under certain conditions. The studies that supported this report did not evaluate actual or potential groundwater degradation associated with those rates.

There are few studies that have attempted to determine maximum BOD loading rates for protection of groundwater quality. Those that have been done are not readily adapted to the varying soil, groundwater, and climate conditions that are prevalent throughout the Central Valley region.

59. The California League of Food Processors' *Manual of Good Practice for Land Application of Food Processing/Rinse Water* (*Manual of Good Practice*) proposes risk categories associated with particular BOD_5 loading rate ranges as follows:

    a. Risk Category 1: (less than 50 lbs/ac/day; depth to groundwater greater than 5 feet) Indistinguishable from good farming operations with good distribution important.

    b. Risk Category 2: (less than 100 lbs/ac/day; depth to groundwater greater than 5 feet). Minimal risk of unreasonable groundwater degradation with good distribution more important.

    c. Risk Category 3: (greater than 100 lbs/ac/day; depth to groundwater greater than 2 feet) Requires detailed planning and good operation with good distribution very important to prevent unreasonable degradation, as well as use of oxygen transfer design equations that consider site specific application cycles and soil properties and special monitoring.

    The *Manual of Good Practice* recommends allowing a 50 percent increase in the BOD_5 loading rates in cases where sprinkler irrigation is used, but recommends that additional safety factors be used for sites with heavy and/or compacted soils.

60. Although it has not been subject to a scientific peer review process, the *Manual of Good Practice* provides science-based guidance for BOD loading rates that, if fully implemented, are considered a best management practice to prevent groundwater degradation due to reduced metals. Projected BOD loading rates to the LAAs may be up to 70 lbs/ac/day, as discussed in Finding 24. These WDRs establish a BOD_5 cycle average loading rate of 100 lbs/ac/day to prevent odor conditions from occurring and to prevent groundwater degradation due to reduced metals.

Compliance with Antidegradation Policy

61. State Water Resources Control Board (State Water Board) Resolution 68-16, *Statement of Policy with Respect to Maintaining High Quality Waters of the State* (Antidegradation Policy), which is incorporated as part of the Basin Plan, prohibits the Central Valley Water Board from authorizing degradation of "high-quality waters" unless it is shown that the discharge(s) causing such

degradation will be consistent with the maximum benefit to the people of California, will not unreasonably affect beneficial uses, and will not result in water quality worse than the applicable WQOs. Any discharge to high-quality waters must meet requirements that will result in the best practicable treatment and control (BPTC) necessary to assure that pollution or nuisance will not occur and the highest water quality consistent with the maximum benefit to the people of the State will be maintained.

62. The Antidegradation Policy applies when an activity discharges to high quality waters and will result in some degradation of such high-quality waters. "High-quality waters" are defined as those waters where water quality is more than sufficient to support beneficial uses designated in the Basin Plan. Whether a water is high-quality water is established on a constituent-by-constituent basis, which means that an aquifer can be considered a high-quality water with respect to one constituent, but not for others (see State Water Board Order WQ 91-10). If the activity will not result in the degradation of high-quality waters, the Antidegradation Policy does not apply, and the discharger need only demonstrate that it will use "best efforts" to control the discharge of waste.

63. No groundwater monitoring wells are present at the Facility. Given the unavailability of history groundwater quality information, compliance with the Antidegradation Policy will be determined on site-specific groundwater quality data from 2021 through 2023, as discussed in the “Groundwater and Subsurface Conditions” section above.

64. For the purposes of this Order, constituents/parameters in the effluent with the potential to degrade groundwater and/or affect beneficial uses include organics (BOD), salts (e.g., potassium, EC, TDS, and FDS), total nitrogen (primarily TKN and nitrate), and metals (iron and manganese). Table 9 below provides a comparison of average concentrations from constituents of concern in the effluent from 2021 through 2023, and observed water quality from the on-site domestic, source, and supplemental irrigation wells at the Facility. The domestic source well data presented in Table 9 is from a March 2021 sampling event, as reported in the RWD. Units are in mg/L unless otherwise shown.

Table 9 - Constituents with Potential for Degradation

Parameters	Effluent	Domestic Source Well	Supplemental Irrigation Wells	Process Source Well	WQO (reference)
BOD_5	1,760	---	---	---	---

Parameters	Effluent	Domestic Source Well	Supplemental Irrigation Wells	Process Source Well	WQO (reference)
EC (µmhos/cm)	---	470	340	280	700 (Ag)
TDS	3,733	300	250	210	500 (sMCL)
FDS	712	260	230	190	NA
Dissolved Potassium	485	3.0	3.3	3.1	NA
Nitrate as nitrogen	0.4	1.3	0.4	0.4	10 (MCL)
TKN	91	<1.0	<1.0	<1.0	NA
Iron	2.3	0.53	<0.03	<0.03	0.30 (sMCL)
Manganese	0.084	0.028	<0.01	<0.01	0.05 (sMCL)

sMCL = Secondary Maximum Contaminant Level
Ag = potential WQO for protection of AG beneficial use

a. Salinity (TDS, FDS, and EC). The limited groundwater data for the site shows groundwater is high quality with regards to saline constituents. FDS is the non-volatile fraction of TDS that has the potential to percolate or leach into shallow groundwater, while EC is a measure of the capacity of water to conduct electrical current and is an indicator of salinity. FDS is a conservative measure for salinity in the process wastewater and is approximately 20 percent of the observed effluent TDS concentration. However, the effluent FDS concentration is more than double the observed concentrations of FDS from the onsite groundwater wells. The concentrations of TDS and FDS observed in average process wastewater exceeds the receiving water concentrations and, therefore, the discharge may degrade receiving water with regard to salinity. As discussed in the Findings above, the discharge is estimated to result in an annual FDS loading of approximately 180 lbs/acre/year to the LAAs (see Table 7).

However, the discharge is high in potassium, which makes up approximately two-thirds of the total FDS concentration in the effluent. Potassium is an important nutrient for crops and, if it is readily available, plants will take it up in excess of their needs. Additionally, the positively charged potassium ion binds readily to soils, allowing for greater retention time in the root zone for crop uptake. Therefore, the application of wastewater with elevated potassium to crops is not considered to increase

the potential for groundwater quality degradation and is potentially beneficial from an agricultural perspective.

b. **Nitrate as nitrogen (N).** For nutrients such as nitrate, the potential for groundwater degradation depends on wastewater quality, rates of application to LAAs, and the ability of the vadose zone below the LAAs to support nitrification and denitrification. Receiving groundwater is considered high quality with respect to nitrate as N, with a maximum detected concentration of 1.3 mg/L and TKN concentrations at less than 1.0 mg/L. While observed average process wastewater concentrations of nitrate as N at the Facility are low (approximately 0.4 mg/L), the process wastewater contains elevated concentrations of total nitrogen, around 90 mg/l, primarily in the form of TKN. TKN consists of organic nitrogen and ammonia nitrogen, and has the potential to mineralize and convert to nitrate (with some loss via ammonia volatilization), which may increase the net concentration of nitrate as N.

   As discussed in the Findings above, nitrogen loading rates are expected to be less than the agronomic nitrogen demand of crops grown on the LAAs, based on the proposed maximum flow of 45 MGY of effluent to the LAA and the average total nitrogen concentration in the effluent. The Discharger reports that they apply effluent and compost (which releases nitrogen more slowly than inorganic nitrogen) to the LAAs, and do not apply inorganic nitrogen fertilizers to crops.

c. **Organics.** Pistachio wastewater generally consists of high levels of organic material. The average effluent BOD_5 concentration for the Facility from 2021 to 2023 was 1,760 mg/L. However, the process wastewater makes up only about three percent of the annual irrigation demand for crops at the LAAs, and blending with irrigation water is expected to significantly reduce the BOD_5 concentration in water that is sent to the LAAs.

   As described in preceding Findings, overloading of BOD_5 to LAAs can result in mobilization of metals that may degrade groundwater quality. However, with sufficient LAA to accommodate BOD_5 loading and proper record-keeping, tracking, and management of effluent land application, such reducing conditions can be minimized or prevented. As described below, this Order includes requirements intended to minimize or prevent overloading of BOD to the Facility LAAs and, thus, minimize or prevent resultant degradation of receiving water with soluble metals.

d. **Metals (iron and manganese).** Available groundwater data for the Facility indicates that receiving water is generally high quality with regard to iron.

Regarding manganese, while one sample from the domestic well resulted in a manganese concentration exceeding the applicable WQO, other groundwater data indicate that receiving water is also high quality with respect to manganese. Observed iron and manganese concentrations in the Facility's process wastewater exceed receiving water concentrations and, therefore, have the potential to cause or contribute to groundwater quality degradation. However, the observed effluent iron and manganese concentrations should not pose a significant threat to groundwater quality, given that the hydraulic load from the process wastewater to 1,568 acres of LAAs is about 0.1 acre/feet/year. Additionally, process wastewater is stored and blended in concrete lined pits that mitigate leaching of wastewater to groundwater. As described below, this Order includes requirements intended to minimize overloading of constituents to the LAAs and applying wastewater at agronomic rates.

65. This Order and the accompanying MRP require the implementation of the following management practices, which the Central Valley Water Board has determined to constitute the Best Practicable Treatment and Control (BPTC) for the discharge and constituents of concern described above. These measures will minimize the extent of water quality degradation resulting from the discharge authorized by this Order.

    a. Wastewater storage and blending with irrigation water shall occur in appropriately lined containment structures before entering the irrigation system for land application.

    b. Wastewater application to LAAs must be at agronomic rates.

    c. BOD_5 cycle average loading rates shall not exceed 100 lbs/acre/day.

    d. The Discharger must maintain compliance with the Salt and Nitrate Control Programs, including participation in the P&O Study and Madera Management Zone.

    e. The Discharger must prepare and implement a Wastewater and Nutrient Management Plan.

    f. The Discharger must conduct regular monitoring of source water and effluent for constituents of concern, results of which must be reported to the Central Valley Water Board.

    g. The Discharger must comply with groundwater loading limits.

66. The limited degradation of high-quality water authorized by this Order is consistent with the maximum benefit of the people of the State. The Facility contributes to the economic prosperity of the region and state, employing approximately 20 full-time employees year-round and up to 92 seasonal

employees during the harvest season, and providing incomes for numerous aligned businesses, as well as local and county governments.

67. Based on the foregoing, adoption of this Order is consistent with the Antidegradation Policy.

California Environmental Quality Act

68. In accordance with the California Environmental Quality Act (CEQA) (Pub. Res. Code, section 21000 et seq.), the Madera County Planning Commission, acting as lead agency, adopted a Mitigated Negative Declaration (MND) evaluating construction and operation of the Facility on 4 August 2020. The Central Valley Water Board has evaluated the lead agency's environmental document and determined that no further CEQA review is necessary prior to the issuance of this Order because substantial changes to the project have not been proposed, substantial changes to project circumstances have not occurred, and new information of substantial importance has not arisen. (See Pub. Res. Code, section 21166.)

69. The issuance of this Order, which prescribes requirements and monitoring of waste discharges at an existing facility, with negligible or no expansion of its existing use, is exempt from the procedural requirements of CEQA, pursuant to California Coade of Regulations, title 14, section 15304.

70. To the extent that the construction of any new basins, ponds, surface impoundments, and/or use of existing irrigated lands as new LAAs are authorized under this Order, such authorizations constitute minor alterations to an existing facility and/or to land, which are exempt from CEQA's procedural requirements pursuant to California Code of Regulations, title 14, sections 15301 and 15304.

Other Regulatory Considerations

Water Code Section 13149.2

71. These WDRs regulate a Facility that may impact a disadvantaged community and/or tribal community and includes an alternative compliance path that allows the Discharger time to come into compliance with a water quality objective (i.e., salinity and nitrate). The Discharger has selected the Alternative Salinity Permitting Approach for the Salt Control Program, which provides an alternative approach for compliance with salinity limits through implementation of specific requirements (i.e. support facilitation and completion of the Salinity P&O study). The Discharger has also selected the Management Zone Approach for the Nitrate Control Program, which provides an alternative approach for compliance with the WQO for nitrate. The Central

Valley Water Board has satisfied the outreach requirements set forth in Water Code section 189.7 by conducting outreach in affected disadvantaged and tribal communities through its notice and comment procedures. Pursuant to Water Code section 13149.2, and as discussed in the following finding, the Central Valley Water Board reviewed readily available information and information raised to the Board by interested persons concerning anticipated water quality impacts in disadvantaged or tribal communities resulting from adoption of these WDRs. The Board also considered environmental justice concerns within the Board's authority and raised by interested persons with regard to those impacts.

72. The Central Valley Water Board anticipates that the issuance of these WDRs will result in water quality impacts within the scope of the Board's authority. Specifically, these WDRs authorize the discharge of wastewater with salinity and nitrogen concentrations that may cause degradation or exceedances of applicable WQOs in the near-term. The BPTC measures required by this Order, as described above, are intended to minimize and, in the longer term, mitigate the impacts of the Facility's discharges to nearby disadvantaged communities in Madera County. Although this Order may result in limited increases to salinity and nitrogen concentrations in groundwater in the near-term, the Salt and Nitrate Control Programs are intended to achieve long-term balance and restoration, where possible, of salt- and nitrogen-impacted groundwater basins across the region.

Human Right to Water

73. Pursuant to Water Code section 106.3, subdivision (a), it is "the established policy of the state that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes." Although this Order is not subject to Water Code section 106.3, as it does not revise, adopt, or establish a policy, regulation, or grant criterion, (see section 106.3, subd. (b)), it nevertheless promotes the policy by requiring discharges to meet MCLs for drinking water (excluding salinity), which are designed to protect human health and ensure that water is safe for domestic use. For salinity, this Order requires compliance with the Salt Control Program. Although the Basin Plans' Exceptions Policy for Salinity allows participants in this Program to obtain limited-term exceptions from MCLs for salinity, this Program is consistent with the Human Right to Water Policy because its over-arching management goals and priorities include short-term provision of safe drinking water to impacted users and long-term restoration of impacted groundwater basins and sub-basins where reasonable, feasible, and practicable.

Threat-Complexity Rating

74. For the purposes of California Code of Regulations, title 23, section 2200, the Facility has a threat and complexity rating of **2-C** as defined below:

    a. Threat Category "2" – Those discharges of waste that could impair the designated beneficial uses of the receiving water, cause short-term violations of water quality objectives, cause secondary drinking water standards to be violated, or cause a nuisance.

    b. Complexity Category "C" – Any discharger for which waste discharge requirements have been prescribed pursuant to Section 13263 of the Water Code not included in Category A or Category B as described above. Included are dischargers having no waste treatment systems or that must comply with best management practices, dischargers having passive treatment and disposal systems, or dischargers having waste storage systems with land disposal.

Title 27 Exemption

75. This Order, which prescribes WDRs for discharges of nonhazardous wastewater to land, is exempt from the prescriptive requirements of California Code of Regulations, title 27 (Title 27), section 20005 et seq. (See Title 27, § 20090, subd. (b)).

Storm Water

76. State Water Board Order 2014-0057-DWQ (NPDES General Permit CAS000001) specifies WDRs for discharges of storm water associated with industrial activities and requires submittal of a Notice of Intent from all affected industrial dischargers. Activities at the Facility fall under the Standard Industrial Classification (SIC) Code 0723 for Crop Preparation for Market. Water associated with industrial activities will not be allowed to discharge off-site or into surface waters. Based on SIC Code and management of the water, enrollment, and coverage under General Order 2014-0057-DWQ is not required at this time.

Scope of Order

77. This Order is strictly limited in scope to those waste discharges, activities, and processes described and expressly authorized herein. This Order is also strictly limited in applicability to those individuals and/or entities specifically designated herein as "Discharger."

78. Pursuant to Water Code section 13264, subdivision (a), the Discharger is prohibited from initiating the discharge of new wastes (i.e., other than those

described herein), or making material changes to the character, volume and/or timing of waste discharges authorized herein, without filing a new RWD per Water Code section 13260.

79. Failure to file a new RWD before initiating material changes to the character, volume or timing of discharges authorized herein shall constitute an independent violation of these WDRs.

Procedural Matters

80. All of the above and the supplemental information in the attached Information Sheet, was considered by the Central Vally Water Board in prescribing the WDRs set forth below.

81. The Discharger, interested agencies, and interested persons were notified of the Central Valley Water Board's intent to prescribe the WDRs in this Order, and provided an opportunity to submit their written views and recommendations at a public hearing. (Water Code, section 13167.5)

82. At a public meeting, the Central Valley Water Board heard and considered all comments pertaining to the discharges regulated under this Order.

83. The Central Valley Water Board will review and revise the WDRs in this Order as necessary.

REQUIREMENTS

IT IS HEREBY ORDERED that pursuant to Water Code sections 13263 and 13267, Dry Ranch, LLC et al., its agents, successors, and employees shall comply with the following:

A. Standard Provisions

1. Except as expressly provided herein, the Discharger shall comply with the Standard Provisions and Reporting Requirements dated 1 March 1991 (1 March 1991 SPRRs), which are incorporated herein.

B. Discharge Prohibitions

1. Discharge of waste to surface waters or surface water drainage courses is prohibited.

2. Waste classified as "hazardous" (per Title 22, § 66261.1, et seq.) shall not be discharged at the Facility under any circumstance.

3. No waste constituent shall be released, discharged, or placed where it will

cause a violation of the Groundwater Limitation of this Order.

4. Wastewater treatment, storage, and disposal shall not cause pollution or nuisance, as those terms are defined by Water Code section 13050.

5. Objectionable odors shall not be perceivable beyond the limits of the Facility property where the waste is generated, treated, and/or discharged at an intensity that creates or threatens to create nuisance conditions.

6. Discharge of waste at a location or in a manner different from that described in the Findings is prohibited.

7. Discharge of process wastewater to the domestic wastewater treatment system is prohibited.

8. Discharge of domestic wastewater to the LAAs is prohibited.

9. Storage of residual solids on areas not equipped with a means to prevent storm water infiltration, or a paved leachate collection system is prohibited.

C. Conditional Discharge Prohibitions

1. During Phase I of the Salt Control Program, the Discharger is prohibited from discharging salts at concentrations exceeding the salinity numeric value of 700 µmhos/cm (as a monthly average) unless the Discharger is implementing the Phase I requirements of the Salt Control Program Alternative Permitting Approach (i.e., full participation in the P&O Study).

2. The Discharger is prohibited from discharging nitrate and other forms of nitrogen speciation (e.g., total inorganic nitrogen and total Kjeldahl nitrogen) unless the Discharger is implementing the requirements of the Nitrate Control Program Management Zone Approach.

D. Flow Limitation

1. Discharges of wastewater shall not exceed the following:

Table 10 - Flow Limitations

Flow Measurement	Flow Limit
Monthly Average Flow	1.5 MGD
Maximum Daily Flow	2.5 MGD
Total Annual Flow (1 January through 31 December)	45 MGY

E. Performance-Based Salinity Limit

1. The annual average concentration of FDS in the effluent sent to the LAAs, as observed prior to blending with irrigation water, shall not exceed 900 mg/L. As discussed in the Findings, this FDS limit is a performance-based salinity limit since the Discharger has elected to participate in the P&O Study. As required per the MRP, the Discharger shall evaluate the annual average effluent FDS concentration to the performance-based salinity limit.

F. Discharge Specifications

1. All wastewater shall be contained in or stored on an engineered lined surface. The engineered lined surface shall meet a hydraulic conductivity standard of 1 x 10^{-6} centimeters per sec or less using one of the following:

   a. A compacted clay liner, with a minimum clay thickness of two feet.

   b. A Portland cement concrete liner, designed to minimize cracking and infiltration.

   c. A synthetic liner, consisting of a 40 thousandths of an inch (mil) synthetic geomembrane or a 60-mil high-density polyethylene liner installed over a prepared base or a secondary clay or concrete liner.

2. All conveyance, treatment, storage, and disposal systems shall be designed, constructed, operated, and maintained to prevent inundation or washout due to floods with a 100-year return frequency.

3. As a means of ensuring compliance with Discharge Specification F.5, the dissolved oxygen (DO) content in the upper one foot of any wastewater treatment or storage pond/pit (i.e. the concrete pits) shall not be less than 1.0 mg/L for three consecutive sampling events. Notwithstanding the DO monitoring frequency specified in the monitoring and reporting program, if DO concentrations in the pond(s)/concrete pit is below 1.0 mg/L for any three consecutive sampling events and objectionable odors are perceivable beyond the property limits, the Discharger shall report the findings to the Central Valley Water Board in writing within 10 days and shall include a specific plan to resolve the odors within 30 days of the first date of violation.

4. The Discharger shall regularly inspect the condition of the concrete lined pits, as required in the MRP. The Discharger shall maintain and repair the liner as necessary to ensure the integrity of the pond/pit liner is maintained and leakage from the pits is minimized. Necessary repairs shall be

completed in reasonable timeframes that are consistent with the severity of the impairment and potential for impact to water quality.

5. The Discharger shall design, construct, operate, and maintain all ponds/concrete pits sufficiently to protect the integrity of containment dams and berms and prevent overtopping and/or structural failure. Unless a California-registered civil engineer certifies (based on design, construction, and conditions of operation and maintenance) that less freeboard is adequate, the operating freeboard in any containment structure shall never be less than two feet (measured vertically from the lowest possible point of overflow). As a means of management and to discern compliance with this requirement, the Discharger shall install and maintain in each concrete pit a permanent staff gauge with calibration marks that clearly show the water level at design capacity and enable determination of available operational freeboard.

6. Wastewater treatment, storage, and disposal ponds/concrete pits or structures shall have sufficient capacity to accommodate allowable wastewater flow, design seasonal precipitation, and ancillary inflow and infiltration during the winter while ensuring continuous compliance with all requirements of this Order. Design seasonal precipitation shall be based on total annual precipitation using a return period of 100 years, distributed monthly in accordance with historical rainfall patterns.

7. On or about **1 August** of each year, available capacity shall at least equal the volume necessary to comply with Discharger Specifications F.8 and F.9.

8. All ponds, pits, and open containment structures shall be managed to prevent breeding of mosquitoes. Specifically:

    a. An erosion control program shall be implemented to ensure that small coves and irregularities are not created around the perimeter of the water surface.

    b. Weeds shall be minimized through control of water depth, harvesting, or herbicides.

    c. Dead algae, vegetation, and debris shall not accumulate on the water surface.

    d. The Discharger shall consult and coordinate with the local Mosquito Abatement District to minimize the potential for mosquito breeding as needed to supplement the above measures.

9. Newly constructed or rehabilitated berms or levees (excluding internal berms that separate the concrete pits or control the flow of water within a pit) shall be designed and constructed under the supervision of a California registered civil engineer.

10. The Discharger shall monitor residual solids accumulation in the concrete pits annually and shall periodically remove solids as necessary to maintain adequate storage capacity.

G. Land Application Area Specifications

For the purposes of this Order, "land application area" or "LAAs" refers to the discharge areas described in the Findings and shown in **Attachment B**.

1. BOD_5 loading to the LAAs, calculated as a cycle average as determined by the methods described in the MRP, shall not exceed **100 pounds per acre per day**.

2. The Discharger shall ensure that all water is applied and distributed with reasonable uniformity across each LAA block.

3. The perimeter of the LAAs shall be graded to prevent ponding along public roads or other public areas and prevent runoff or overspray onto adjacent properties not owned or controlled by the Discharger.

4. Crops shall be grown on the LAAs. Crops shall be selected based on nutrient uptake, consumptive use of water, and irrigation requirements to maximize crop uptake of water and nutrients.

5. Application of waste constituents to the LAAs shall be at reasonable agronomic rates.

6. Hydraulic loading of combined wastewater and supplemental irrigation water shall be managed to:

   a. Provide water only when water is needed and in amounts consistent with crop needs;

   b. Maximize crop nutrient uptake;

   c. Maximize breakdown of organic waste constituents in the root zone; and

   d. Minimize the percolation of waste constituents below the root zone.

The Central Valley Water Board recognizes that some leaching of salts is necessary to manage salt in the root zone of the crops. Leaching shall be managed to minimize degradation and maintain or reduce, to the extent practicable, concentrations of saline constituents and nitrate (and other forms of nitrogen speciation) in receiving waters.

7. The resulting effect of the discharge on soil pH shall not exceed the buffering capacity of the soil profile.

8. Land application of wastewater shall be managed to minimize erosion.

9. The LAAs shall be managed to prevent breeding of mosquitos. More specifically:

   a. All applied irrigation water must infiltrate completely within 48 hours;

   b. Ditches not serving as wildlife habitat should be maintained free of emergent, marginal, and floating vegetation; and

   c. Low-pressure and unpressurized pipelines and ditches accessible to mosquitos shall not be used to store process wastewater.

10. Irrigation of the LAAs shall occur only when appropriately trained personnel are on duty.

11. Discharge to the LAAs shall not be initiated when the ground is saturated.

12. Any irrigation runoff (i.e., tailwater) shall be confined to the LAAs or returned to the process wastewater system.

13. LAAs shall be inspected periodically to determine compliance with the requirements of this Order. If an inspection reveals noncompliance or threat of noncompliance with this Order, the Discharger shall temporarily stop land application use immediately and implement corrective actions to ensure compliance with this Order.

H. Groundwater Limitations

The Facility's discharges shall not cause or contribute to groundwater containing constituent concentrations in excess of the concentrations specified below or natural background groundwater quality, whichever is greater:

1. Constituents in concentrations that exceed either the Primary or Secondary MCLs established in Title 22, excluding salinity provided the

Discharger complies with Salt Control Program requirements (see Conditional Prohibition C.1 and Provision J.3).

2. Contain taste or odor-producing constituents, toxic substances, or any other constituents in concentrations that cause nuisance or adversely affect beneficial uses, (e.g., by creating off-tastes and/or odor, producing detrimental physiological responses in human, plant, animal, or aquatic life [i.e., toxicity]).

I. Solid Disposal Specifications

1. For the purpose of this Order, residual solids include organic matter removed by screens and filters and soil sediments removed during the treatment process. Residual solids mean organic processing byproducts such as leaves, twigs, hulls and shells, that will not be subject to treatment prior to disposal.

2. Residual solids shall be removed from screens, pits, and ponds as needed to ensure optimal operation, prevent nuisance conditions, and maintain adequate storage capacity.

3. Any handling and storage of solid waste and residual solids shall be controlled and contained in a manner that minimizes leachate formation and precludes infiltration of waste constituents into soils in a mass or concentration that will violate the groundwater limitations of this Order.

4. If removed from the site, solid waste and residual solids shall be disposed of in a manner consistent with Title 27, division 2. Removal for reuse as animal feed, biofuel feedstock, or land disposal at facilities (i.e., landfills, composting facilities, soil amendment sites operated in accordance with valid waste discharge requirements issued by a regional water quality control board) will satisfy this specification.

5. Any proposed change in residual solids use or disposal practice shall be reported in writing to the Executive Officer at least 90 days in advance of the change.

J. Provisions

1. The Discharger shall comply with the separately issued Monitoring and Reporting Program Order R5-2025-0020 (MRP), and any revisions thereto as ordered by the Central Valley Water Board or the Executive Officer. The submittal dates of Discharger self-monitoring reports shall be no later than the submittal date specified in the MRP.

2. A copy of this Order, including the MRP, Information Sheet, Attachments, and SPRRs, shall be kept at the Facility for reference by operating personnel. Key operating personnel shall be familiar with its contents.

3. The Discharger shall comply with the applicable provisions of the Salt and Nitrate Control Programs adopted in Resolution R5-2018-0034 (as revised per Resolution R5-2020-0057) to address ongoing salt and nitrate accumulation in the Central Valley developed as part of the Central Valley Salinity Alternatives for Long-Term Sustainability (CV-SALTS) initiative.

4. In accordance with Business and Professions Code sections 6735, 7835, and 7835.1, engineering and geologic evaluations and judgments shall be performed by or under the direction of registered professionals competent and proficient in the fields pertinent to the required activities. All technical reports specified herein that contain workplans for investigations and studies, that describe the conduct of investigations and studies, or that contain technical conclusions and recommendations concerning engineering and geology shall be prepared by or under the direction of appropriately qualified professional(s), even if not explicitly stated. Each technical report submitted by the Discharger shall bear the professional's signature and stamp.

5. **By 24 July 2025**, the Discharger shall submit an **Operations and Maintenance Plan (O&M Plan)** that describes operation and maintenance of the concrete-lined pits used to collect wastewater immediately following hulling and the blending pit. The O&M Plan shall specify clean-out activities in the pits, as well as frequency of clean-out, and how the Discharger plans to monitor the integrity of the concrete liners and conduct pit liner repairs.

6. By **24 July 2025**, the Discharger shall submit a **Wastewater and Nutrient Management Plan** that describes how the Discharger will apply wastewater to the LAA in accordance with these WDRs. At a minimum, the Wastewater and Nutrient Management Plan must include the following:

    a. Procedures for monitoring Facility operations and discharge.

    b. Practicable measures to ensure reasonable even application of wastewater, including how the Discharger will evenly apply wastewater across an entire block.

    c. An action plan to deal with objectionable odors and/or nuisance conditions.

d. Details on how wastewater and irrigation water will be blended (if applicable).

e. A detailed map of the LAA blocks to be used each year to facilitate tracking annual wastewater application and nutrient release to the land.

f. Management practices that will ensure that wastewater, irrigation water, and fertilizers/compost are applied at agronomic rates to the LAA.

7. The Discharger shall submit the technical reports and work plans required by this Order for consideration by the Executive Officer and incorporate comments the Executive Officer may have in a timely manner, as appropriate. Unless expressly stated otherwise in this Order, the Discharger shall proceed with all work required by the foregoing provisions by the due dates specified.

8. The Discharger shall comply with all conditions of this Order, including timely submittal of technical and monitoring reports. On or before each report due date, the Discharger shall submit the specified document to the Central Valley Water Board or, if appropriate, a written report detailing compliance or noncompliance with the specific schedule date and task. If noncompliance is being reported, then the Discharger shall state the reasons for such noncompliance and provide an estimate of the date when the Discharger will be in compliance. The Discharger shall notify the Central Valley Water Board in writing when it returns to compliance with the time schedule. Violations may result in enforcement action, including Central Valley Water Board or court orders requiring corrective action or imposing civil monetary liability, or in revision or rescission of this Order.

9. The Discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the Discharger to achieve compliance with the conditions of this Order. Proper operation and maintenance also include adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems that are installed by the Discharger when the operation is necessary to achieve compliance with the conditions of this Order.

10. As described in the SPRRs, the Discharger shall report promptly to the Central Valley Water Board any material change or proposed change in the character, location, or volume of the discharge.

11. In the event that the Discharger reports toxic chemical release data to the State Emergency Response Commission (SERC) pursuant to section 313 of the Emergency Planning and Community Right to Know Act (42 U.S.C. section 11023), the Discharger shall also report the same information to the Central Valley Water Board within 15 days of the report to the SERC.

12. At least 90 days prior to termination or expiration of any lease, contract, or agreement involving disposal or recycling areas or off-site reuse of effluent, used to justify the capacity authorized herein and assure compliance with this Order, the Discharger shall notify the Central Valley Water Board in writing of the situation and of what measures have been taken or are being taken to assure full compliance with this Order.

13. In the event of any change in control or ownership of the Facility, the Discharger must notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be immediately forwarded to the Central Valley Water Board.

14. To assume operation as Discharger under this Order, the succeeding owner or operator must apply in writing to the Executive Officer requesting transfer of the Order. The request must contain the requesting entity's full legal name, the state of incorporation if a corporation, the name and address and telephone number of the persons responsible for contact with the Central Valley Water Board, and a statement. The statement shall comply with the signatory paragraph of SPRRs Standard Provision B.3 and state that the new owner or operator assumes full responsibility for compliance with this Order. Failure to submit the request shall be considered a discharge without requirements, a violation of the Water Code. If approved by the Executive Officer, the transfer request will be submitted to the Central Valley Water Board for its consideration of transferring the ownership of this Order at one of its regularly scheduled meetings.

15. In order to secure rescission of WDRs that are no longer necessary because the discharge to land permitted under this Order has ceased, the Discharger must contact the Central Valley Water Board Compliance and Enforcement Unit to coordinate appropriate wastewater treatment, storage, and conveyance closure requirements.

16. A discharger whose waste flow has been increasing, or is projected to increase, shall estimate when flows will reach hydraulic and treatment capacities of its treatment, collection, and disposal facilities. The projections shall be made in January, based on the last three years' average dry weather flows, peak wet weather flows and total annual flows,

as appropriate. When any projection shows that capacity of any part of the facilities may be exceeded in four years, the discharger shall notify the Central Valley Water Board by 31 January.

17. The Central Valley Water Board will review this Order periodically and will revise requirements when necessary.

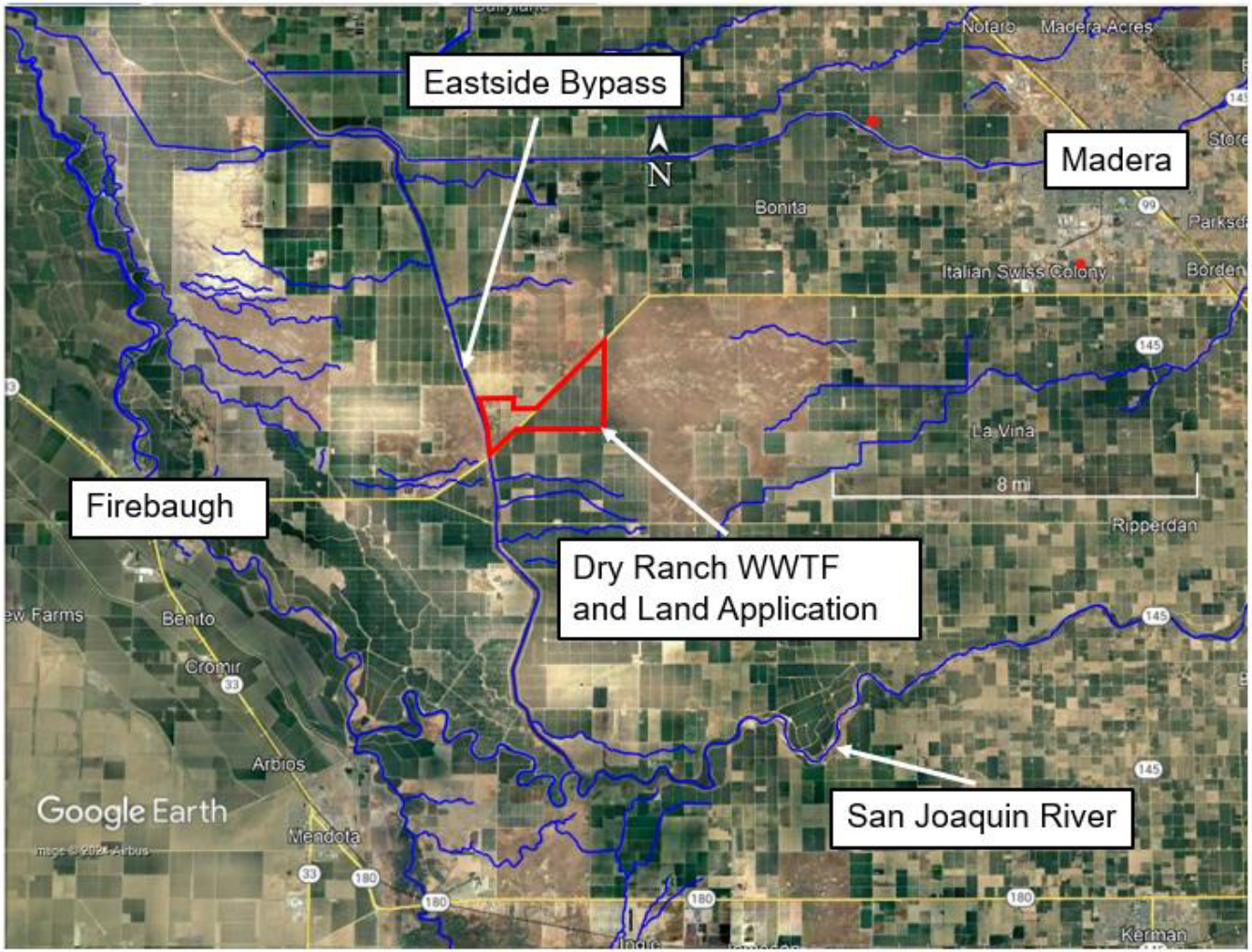
ENFORCEMENT

If, in the opinion of the Executive Officer, the Discharger fails to comply with the provisions of this Order, the Executive Officer may refer this matter to the Attorney General for judicial enforcement, may issue a complaint for administrative civil liability, or may take other enforcement actions. Failure to comply with this Order may result in the assessment of Administrative Civil Liability of up to $10,000 per violation, per day, depending on the violation, pursuant to Water Code sections 13268, 13350, and 13385. The Central Valley Water Board reserves its right to take any enforcement actions authorized by law.

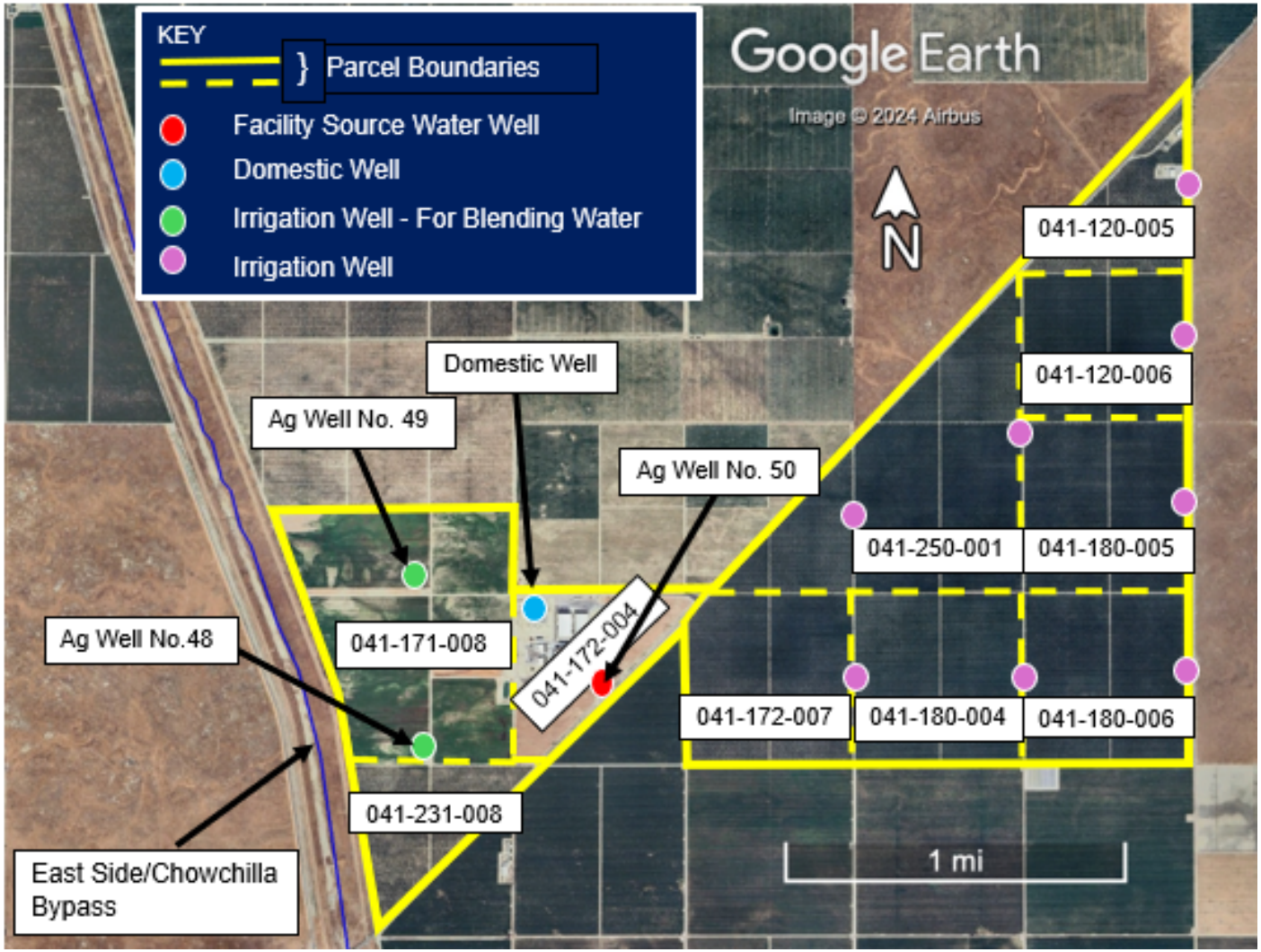
ADMINISTRATIVE REVIEW

Any person aggrieved by this Central Valley Water Board action may petition the State Water Board for review in accordance with Water Code section 13320 and California Code of Regulations, title 23, section 2050 et seq. To be timely, the petition must be received by the State Water Board by 5:00 pm on the 30th day after the date of this Order; if the 30th day falls on a Saturday, Sunday or state holiday, the petition must be received by the State Water Board by 5:00 pm on the next business day. Copies of the law and regulations applicable to filing petitions are available on the State Water Board website (http://www.waterboards.ca.gov/public_notices/petitions/water_quality). Copies will also be provided upon request.

ATTACHMENT A – SITE LOCATION MAP

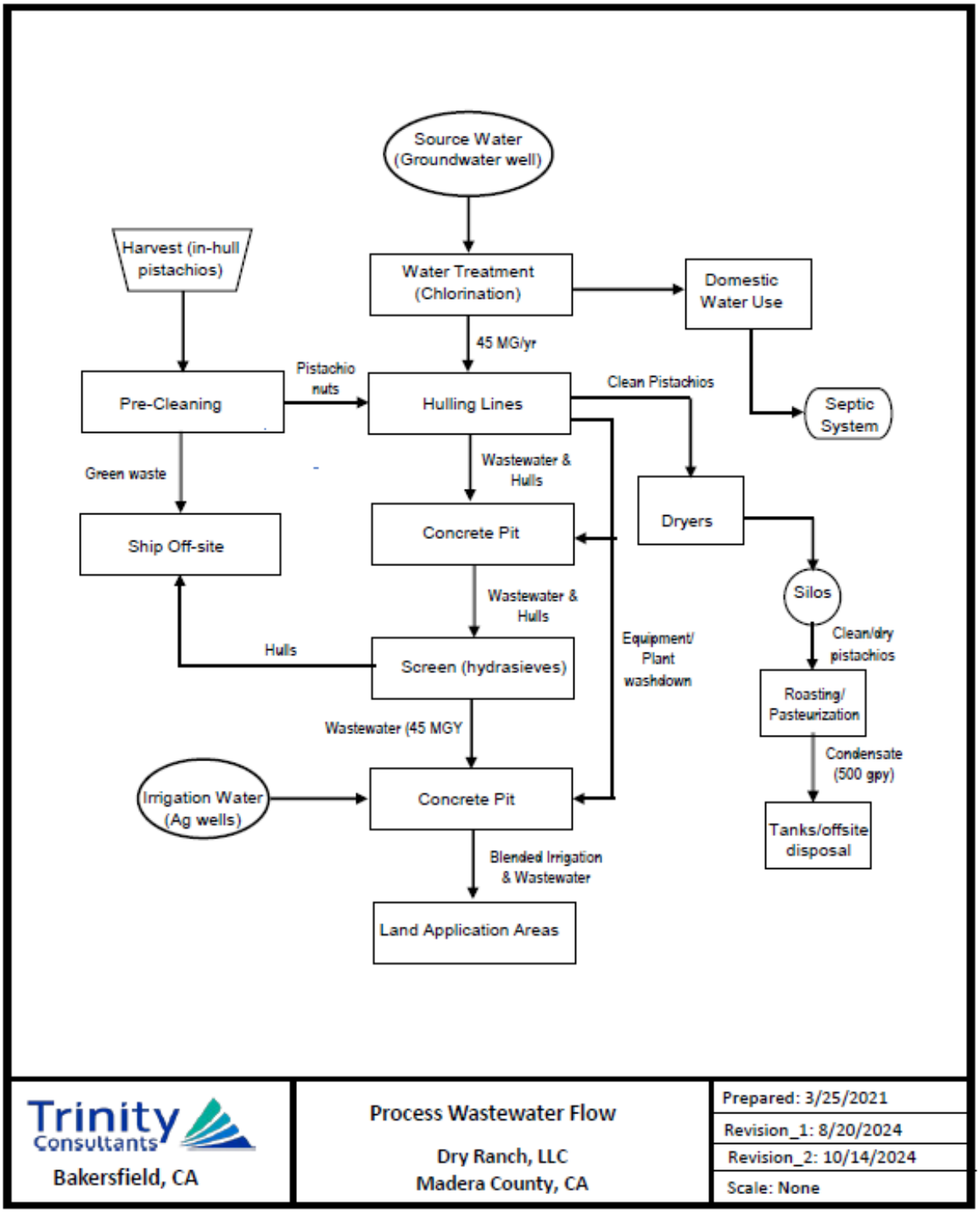


ATTACHMENT B – SITE PLAN MAP



ATTACHMENT C – FACILITY MAP

ATTACHMENT D – PROCESS FLOW DIAGRAM



CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

Waste Discharge Requirements Order R5-2025-0020
For
Dry Ranch, LLC. et al.
Dry Ranch Pistachio Facility
Madera County

INFORMATION SHEET

Background

On 28 May 2021, Central Valley Water Board staff received a Report of Waste Discharge (RWD) for a discharge of process wastewater from a new pistachio processing Facility (Facility) near Firebaugh in Madera County. The RWD was submitted by Trinity Consultants on behalf of Dry Ranch, LLC (Dry Ranch or Discharger). The RWD includes a Form 200 and a technical report prepared and signed by Dolores Gough (RCE 62599), a California registered civil engineer. In addition, a copy of the Mitigated Negative Declaration for the project that was approved by Madera County on 4 August 2020 was received, and an application fee and revised Form 200 were received on 21 June 2021.

Dry Ranch, LLC owns the processing Facility but does not own the land. Dry Ranch leases the land where the processing Facility is located, and the land is owned by G & G Andrew Farms Tenants in Common, Creekside Farms Tenants in Common, Alkali Hollow Farms, Inc., and ATB Ranch, LP. A detailed summary of land ownership for the processing Facility and the land application areas is provided in Findings 4 to 7, and Table 1 of the WDRs. Location information for the pistachio processing Facility, land application areas (including assessor's parcel numbers) acreage, owner, and land use is also summarized in Table 1. Attachment A is a site location map. Attachment B is a site plan map that depicts source water wells and parcel numbers associated with the Facility and LAAs.

Facility and Discharge Description

The Dry Ranch Pistachio Facility is a pistachio nut hulling and processing facility that processes up to approximately 15 million pounds of pistachios annually and generates approximately 45 million gallons of process wastewater per year. Operations at the Facility include hulling, drying, processing, finishing, packaging, warehousing, and storing of pistachios. Construction is being conducted in two phases, as described in Finding 11 of this Order. The first phase is mainly for the hulling operation (removes the fleshy portion of the fruit leaving the nut) and the second phase is for the shelling operation (removes the shell leaving the nut – the so called the Ready-to-Eat [RTE] Building). Currently, Phase 2 (the "Ready-to-Eat" shelling and pasteurization operation) is not completed but the Discharger expects to bring the Phase 2 operation online to start producing the "Ready-to-Eat" product in late February or early March 2025.

Most of the process wastewater (45 MG) at the Facility is generated from the hulling operation. A small volume of wastewater, about 500 gallons per year, will be generated in the Ready-To-Eat (RTE) Facility; however, this waste stream will be collected in storage tanks and disposed via a licensed disposal company (e.g. Safety Kleen).

The hulling wastewater, along with the hulls and minor amounts of shells that are removed by the hullers, is discharged into one of two, approximately 23,000-gallon concrete pits, operated in parallel. From these pits, the hulling water is pumped to a bank of parabolic screens to separate the solids. Then the process water goes into an approximately 48,000-gallon concrete pit where it is mixed with fresh irrigation water and then pumped into the metered farming irrigation system and applied to the LAAs via flood irrigation. Solids generated from the screens are placed directly into trucks and hauled offsite for beneficial use, such as animal feed or composting. A process flow diagram of the wastewater collection and treatment process is shown in Attachment D.

Source Water, Irrigation Water and Groundwater Considerations

The Facility sources groundwater for its operations from one domestic well and three agricultural wells onsite. Ag Well No. 50 is used to provide process water and firefighting water for the pistachio processing Facility. Ag Wells No. 48 and No. 49 are used to provide irrigation water to one of the concrete pits where it is mixed with the treated effluent for land application. The “domestic well” provides water for domestic purposes only at the processing Facility. It does not provide water that is used for processing pistachios. The wastewater associated with the domestic well goes to three septic systems. There are also several irrigation wells that are used for supplemental irrigation water for the LAA (Attachment B).

Groundwater quality data for 2021 to 2023, from the domestic well serving the site and the agricultural wells, is summarized in Table 8 in the Findings. The domestic well had one exceedance of a secondary MCL, with an iron reading of 0.53 mg/L (compared to the secondary MCL of 0.3 mg/L). Otherwise, the domestic well readings met the MCLs. The RWD and the self-monitoring reports contain groundwater quality data for 2021 to 2023 from the agricultural wells serving the site, which is also summarized in Table 8 of the WDRs. All water quality results from the agricultural wells met MCLs.

Process wastewater effluent quality for 2021 through 2023 is summarized in Table 3 of the WDRs. Samples are collected prior to blending the effluent with irrigation water. The average effluent BOD_5 concentration is strong, at 1,760 mg/L, and average TDS is high, as well, at 3,700 mg/L. The average effluent FDS is less than one-fifth of effluent TDS, indicating most of the TDS are organic dissolved solids. Average total nitrogen, consisting of mostly TKN, is fairly strong at 91 mg/L. Additionally, dissolved iron and potassium concentrations are elevated.

Annual average effluent concentrations are shown in Table IS-1 below. The number on the top center of the cell is the average. The number on the top right is the number of samples. The range in the bottom brackets in the range of test result values.

Table IS-1 - Annual Effluent Concentration for Selected Parameters

	2021	2022	2023
BOD_5	1,740 (3) [650 – 3,800]	1,607 (3) [120 – 3,600]	1,933 (3) [1,600 – 2,400)
Total Nitrogen	79.67 (3) [39 – 160]	64 (3) [16 - 130]	130.3 (3) [90 – 180]
FDS	656.67 (3) [380 – 1,200]	490 (3) [270 – 760]	990 (3) [820 – 1,300]

Antidegradation

Antidegradation analysis and conclusions are discussed in Findings 61 through 67 of the WDRs. For the purposes of this Order, constituents/parameters in effluent with the potential to degrade groundwater and/or affect beneficial uses include BOD_5, salts (represented by potassium, TDS and FDS), and total nitrogen (primarily TKN and nitrate as nitrogen).

Discharge Prohibitions, Effluent Limitations, Discharge Specification, and Provisions

This Order sets the following flow limits:

- Waste discharges to the LAAs shall not exceed 1.5 MGD as a monthly average or 2.5 MGD for a peak day
- Waste discharges to the LAAs shall not exceed 45 MGY for the calendar year (1 January through 31 December).

This Order sets a Performance-Based Salinity Limit of **900 mg/L for FDS** as a **flow-weighted annual average**. This limit is based on effluent data from the first three years of operation. By choosing to participate in the P&O Study, the Discharger may continue implementing reasonable, feasible, and practicable efforts to control salinity through performance-based measures. In addition, this Order prescribes a total nitrogen mass loading limit not to exceed crop demand and a **BOD_5 loading limit of 100 lb/acre/day as an irrigation cycle average**.

Monitoring Requirements

Section 13267 of the California Water Code authorizes the Central Valley Water Board to require monitoring and technical reports as necessary to investigate the impact of waste discharges on waters of the State. Water Code Section 13268 authorizes assessment of civil administrative liability where appropriate. The Order includes monitoring requirements for wastewater, concrete pits, LAAs, residual solids, and source water wells. This monitoring is necessary to characterize the discharge and evaluate any impacts to groundwater and compliance with the requirements and specifications in the Order.

Salt and Nitrate Control Programs Regulatory Considerations

As part of the Central Valley Salinity Alternatives for Long-Term Sustainability (CV-SALTS) initiative, the Central Valley Water Board adopted Basin Plan amendments (Resolution R5-2018-0034) incorporating new programs for addressing ongoing salt and nitrate accumulation in the waters and soils of the Central Valley at its 31 May 2018 Board Meeting. On 16 October 2019, the State Water Resources Control Board adopted Resolution No. 2019-0057 conditionally approving the Central Valley Water Board Basin Plan amendments and directing the Central Valley Water Board to make targeted revisions to the Basin Plan amendments within one year from the approval of the Basin Plan amendments by the Office of Administrative Law. The Office of Administrative Law (OAL) approved the Basin Plan amendments on 15 January 2020 (OAL Matter No. 2019-1203-03).

Pursuant to the Basin Plan amendments, dischargers received a Notice to Comply with instructions and obligations for the Salt Control Program within one year of the effective date of the amendments (17 January 2020). Upon receipt of the Notice to Comply, the Discharger had no more than six months to inform the Central Valley Water Board of their choice between Option 1 (Conservative Option for Salt Permitting) or Option 2 (Alternative Option for Salt Permitting). The level of participation required of dischargers whose discharges do not meet stringent salinity requirements will vary based on factors such as the amount of salinity in the discharge, local conditions, and type of discharge. The Discharger (**CV-SALTS ID 3591**) has chosen to pursue Option 2 (Alternative Salinity Permitting Approach).

For the Nitrate Control Program, the Discharger is in a Priority 2 subbasin (Madera) and was sent a Notice to Comply dated 29 December 2023. These notices provided dischargers with a choice to participate in an individual permitting approach (Pathway A) or in a collective permitting approach (Pathway B). The Discharger submitted a Notice of Intent for the Nitrate Control Program dated 14 July 2021 along with the RWD, and indicated it intends to participate in the Pathway B Management Zone Permitting Approach for Groundwater Basin 5-022.06. Under the collective approach, dischargers

jointly form “Management Zones” that fulfill the requirements of the Nitrate Control Program.

The CV-SALTS initiative will result in regulatory changes that will be implemented through conditional prohibitions and modifications to many WDRs regionwide, including the WDRs that regulate discharges from the Facility. More information regarding the CV-SALTS regulatory planning process can be found at the following link: (https://www.waterboards.ca.gov/centralvalley/water_issues/salinity/).

Reopener

The conditions of discharge in the Order were developed based on currently available technical information and applicable water quality laws, regulations, policies, and plans, and are intended to assure conformance with them. The Order sets limitations based on the information provided thus far. If applicable laws and regulations change, or once new information is obtained that will change the overall discharge and its potential to impact groundwater, it may be appropriate to reopen the Order.

Legal Effect of Rescission of Prior WDRs or Orders on Existing Violations

The Central Valley Water Board’s rescission of prior waste discharge requirements and/or monitoring and reporting orders does not extinguish any violations that may have occurred during the time those waste discharge requirements or orders were in effect. The Central Valley Water Board reserves the right to take enforcement actions to address violations of prior prohibitions, limitations, specifications, requirements, or provisions of rescinded waste discharge requirements or orders as allowed by law.